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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/750,858

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Toshiaki Tsuda

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10/18/2005

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EXAMINER

CANNING, ANTHONY J

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/750,858

Applicant(s)

TSUDA ET AL.

Examiner

Anthony J. Canning

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/5/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 6 is objected to because of the following informalities: uppermost is misspelled upperrmost. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-14 rejected under 35 U.S.C. 102(b) as being anticipated by Karlotski et al. (U.S. 4,942,330).
4. As to claim 1, Karlotski et al. disclose a discharge bulb, comprising: an arc tube fixedly positioned and forwardly elongating from an insulating base positioned behind said arc tube (see Fig. 1 item 32; column 3, lines 41-42; because the arc tube is made of an insulator, quartz, the base of the arc tube is insulating); a ceramic, straight, and cylindrical light emitting tube positioned in said arc tube (see Fig. 1, item 14; column 3, lines 20-31; here it is stated that the light-emitting tube can be any light-emitting capsule, ceramic is commonly used as a light-emitting capsule), said light emitting tube having sealed end portions to form an enclosed space therein (column 3, lines 26-31, having a different pressure from the outer envelope means that it

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must be sealed); and electrodes opposingly disposed (see Fig. 1, item 22; column 3, lines 23-25; the electrical leads are the electrodes, which extend into the light-emitting tube) in said light emitting tube where said enclosed space is filled with a light emitting substance and a starting rare gas (column 3, lines 49-51); and wherein a first light blocking portion is disposed on a first portion of said arc tube that corresponds to at least a rear one of the sealed end portions of said light emitting tube, said light blocking portion extending over at least a predetermined range from an upper side in a circumferential direction to both lateral sides of said light emitting tube (see Fig. 1, item 34a and 34b; column 4, lines 39-41; the mesh can be wound to block light, since the wires are a double helix they are in a circumferential direction to both lateral sides of the light-emitting tube).

5. As to claim 8, Karlotski et al. disclose a discharge bulb, comprising: an arc tube is fixedly positioned so as to elongate from an insulating base positioned behind said arc tube (see Fig. 1 item 32; column 3, lines 41-42; because the arc tube is made of an insulator, quartz, the base of the arc tube is insulating); a ceramic, straight, and cylindrical light emitting tube positioned in said arc tube (see Fig. 1, item 14; column 3, lines 20-31; here it is stated that the light-emitting tube can be any light-emitting capsule, ceramic is commonly used as a light-emitting capsule) and having sealed end portions to form an enclosed space therein (column 3, lines 26-31, having a different pressure from the outer envelope means that it must be sealed); and electrodes opposingly disposed (see Fig. 1, item 22; column 3, lines 23-25; the electrical leads are the electrodes, which extend into the light-emitting tube) in said light emitting tube, wherein said enclosed space is filled with a light emitting substance and a starting rare gas (column 3, lines 49-51); and an ultraviolet-ray blocking glass shroud surrounding said light emitting tube and

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positioned around said arc tube, wherein, in at least one of said arc tube and said glass shroud, a light blocking portion is positioned corresponding to at least a rear end sealed portion among front and rear end sealed portions of said light emitting tube, said light blocking portion extending over at least a range from an upper side in a circumferential direction to both lateral sides (see Fig. 1, item 34a and 34b; column 4, lines 39-41; the mesh can be wound to block light, since the wires are a double helix they are in a circumferential direction to both lateral sides of the light-emitting tube; see Fig. 1, item 12; column 3, lines 25-26; glass envelopes block ultraviolet radiation).

6. As to claim 2, Karlotski et al. disclose the discharge bulb according to claim 1. Karlotski et al. further disclose: a light blocking portion positioned on a second portion that corresponds to a front one of the sealed end portions of said light emitting tube, and said light blocking portion extends over at least a predetermined range, from a lower side in the circumferential direction to both of said lateral sides of said light emitting tube (see Fig. 1, items 34 and 34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

7. As to claim 3, Karlotski et al. disclose the discharge bulb of claim 2. Karlotski et al. further disclose that the second light blocking portion is formed in a predetermined width from the second position corresponding to said sealed portion of said light emitting tube, up to a maximum width substantially at a tip end of corresponding one of said electrodes (see Fig. 1, items 34 and 34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

8. As to claim 4, Karlotski et al. disclose the discharge bulb of claim 1. Karlotski et al. further disclose that the first light blocking portion is formed in a predetermined width from the first position corresponding to said sealed portion of said light emitting tube, up to a maximum width substantially at a tip end of corresponding one of said electrodes (see Fig. 1, items 34 and 34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

9. As to claim 5, Karlotski et al. disclose the discharge bulb of claim 1. Karlotski et al. further disclose that the light blocking portion on a rear end side of at least one of said arc tube and a glass shroud extends in the circumferential direction to positions that horizontally coincide in level with an lowermost position of said rear end sealed portion of said light emitting tube (see Fig. 1, items 34 and 34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

10. As to claim 6, Karlotski et al. disclose the discharge bulb of claim 1. Karlotski et al. further disclose wherein said light blocking portion on a front end side of at least one of said arc tube and said glass shroud extends in the circumferential direction to positions that horizontally coincide in level with a uppermost position of said front end sealed portion of said light emitting tube (see Fig. 1, items 34 and 34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

11. As to claim 7, Karlotski et al. disclose the discharge bulb of claim 1. Karlotski et al. further disclose that the light-blocking portion is disposed in the circumferential direction over a whole circumference of at least one of said arc tube and a glass shroud (see Fig. 1, items 34 and

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34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

12. As to claim 9, Karlotski et al. disclose the discharge bulb according to claim 3, further comprising: a light blocking portion positioned corresponding to said front end sealed portion of said light emitting tube, in at least one of said arc tube and a glass shroud, wherein said light blocking portion extends over at least a predetermined range from a lower side in the circumferential direction to both of said lateral sides (see Fig. 1, items 34 and 34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

13. As to claim 10, Karlotski et al. disclose the discharge bulb of claim 9. Karlotski et al. further disclose that the second light blocking portion is formed in a predetermined width from the second position corresponding to said sealed portion of said light emitting tube, up to a maximum width substantially at a tip end of corresponding one of said electrodes (see Fig. 1, items 34 and 34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

14. As to claim 11, Karlotski et al. disclose the discharge bulb of claim 8. Karlotski et al. further disclose that the first light blocking portion is formed in a predetermined width from the first position corresponding to said sealed portion of said light emitting tube, up to a maximum width substantially at a tip end of corresponding one of said electrodes (see Fig. 1, items 34 and 34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

15. As to claim 12, Karlotski et al. disclose the discharge bulb of claim 8. Karlotski et al. further disclose that the light blocking portion on a rear end side of at least one of said arc tube and said glass shroud extends in the circumferential direction to positions that horizontally coincide in level with an lowermost position of said rear end sealed portion of said light emitting tube (see Fig. 1, items 34 and 34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

16. As to claim 13, Karlotski et al. disclose the discharge bulb of claim 8. Karlotski et al. further disclose that the light blocking portion on a front end side of at least one of said arc tube and said glass shroud extends in the circumferential direction to positions that horizontally coincide in level with a uppermost position of said front end sealed portion of said light emitting tube (see Fig. 1, items 34 and 34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

17. As to claim 14, Karlotski et al. disclose the discharge bulb of claim 8. Karlotski et al. further disclose that the light blocking portion is disposed in the circumferential direction over a whole circumference of at least one of said arc tube and said glass shroud (see Fig. 1, items 34 and 34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

19. Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karlotski et al. (U.S. 4,942,330) in view of Strok et al. (U.S. 5,952,768).

20. As to claim 15, Karlotski et al. disclose a discharge bulb, comprising: an arc tube fixedly positioned and forwardly elongating from an insulating base positioned behind said arc tube (see Fig. 1 item 32; column 3, lines 41-42; because the arc tube is made of an insulator, quartz, the base of the arc tube is insulating); a ceramic, straight, and cylindrical light emitting tube positioned in said arc tube (see Fig. 1, item 14; column 3, lines 20-31; here it is stated that the light-emitting tube can be any light-emitting capsule, ceramic is commonly used as a light-emitting capsule) and having sealed end portions to form an enclosed space therein (column 3, lines 26-31, having a different pressure from the outer envelope means that it must be sealed); electrodes opposingly disposed in said light emitting tube (see Fig. 1, item 22; column 3, lines 23-25; the electrical leads are the electrodes, which extend into the light-emitting tube), where said enclosed space is filled with a light emitting substance and a starting rare gas column 3,

lines 49-51). Karlotski et al. fail to disclose a means for positioning a hot zone of a luminous distribution at a cutoff line of said luminous distribution, and substantially reducing a glare light output.

Strok et al. disclose an arc tube discharge bulb with a means for positioning a hot zone of a luminous distribution at a cutoff line of said luminous distribution, and substantially reducing a glare light output (see Fig. 2, item 58; column 4, lines 7-24). Strok et al. further disclose that improves the efficacy, life and color of the lamp (column 2, lines 44-46).

Therefore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to modify the discharge lamp of Karlotski et al. to include a means for positioning a hot zone of a luminous distribution at a cutoff line of said luminous distribution, and substantially reducing a glare light output, as taught by Strok et al., to improve the efficacy, life and color of the lamp

21. As to claim 16, Karlotski et al. and Strok et al. disclose the discharge bulb of claim 15. Karlotski et al. further discloses a means for positioning and substantially reducing including: a first light blocking portion disposed on a first portion of said arc tube that corresponds to at least a rear one of the sealed end portions of said light emitting tube, wherein said light blocking portion extends over at least a predetermined range from an upper side in a circumferential direction to both lateral sides of said light emitting tube (see Fig. 1, items 34 and 34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

22. As to claim 17, Karlotski et al. and Strok et al. disclose the discharge bulb according to claim 16. Karlotski et al. further disclose a means for positioning and substantially reducing

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further comprising: a light blocking portion positioned corresponding to said front end sealed portion of said light emitting tube, in at least one of said arc tube and said glass shroud, wherein said light blocking portion extends over at least a predetermined range from a lower side in the circumferential direction to both of said lateral sides (see Fig. 1, items 34 and 34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

23. As to claim 18, Karlotski et al. and Strok et al. disclose the discharge bulb of claim 16. Karlotski et al. further disclose that the second light blocking portion is formed in a predetermined width from the second position corresponding to said sealed portion of said light emitting tube, up to a maximum width substantially at a tip end of corresponding one of said electrodes, and wherein said first light blocking portion is formed in a predetermined width from the first position corresponding to said sealed portion of said light emitting tube, up to a maximum width substantially at a tip end of corresponding one of said electrodes (see Fig. 1, items 34 and 34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

24. As to claim 19, Karlotski et al. and Strok et al. disclose the discharge bulb of claim 16. Karlotski et al. light blocking portion on a rear end side of at least one of said arc tube and said glass shroud extends in the circumferential direction to positions that horizontally coincide in level with an lowermost position of said rear end sealed portion of said light emitting tube, said light blocking portion on a front end side of at least one of said arc tube and said glass shroud extends in the circumferential direction to positions that horizontally coincide in level with a uppermost position of said front end sealed portion of said light emitting tube, and said light

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blocking portion is disposed in the circumferential direction over a whole circumference of at least one of said arc tube and said glass shroud (see Fig. 1, items 34 and 34b; column 4, lines 19-21, lines 39-41; any desirable configuration means that the mesh can be formed to block light at any portion of the arc tube).

25. As to claim 20, Karlotski et al. and Strok et al. disclose the discharge bulb of claim 16. Karlotski et al. further disclose an ultraviolet-ray blocking glass shroud surrounding said light emitting tube and positioned around said arc tube, wherein, in at least one of said arc tube and said glass shroud (see Fig. 1, item 34a and 34b; column 4, lines 39-41; the mesh can be wound to block light, since the wires are a double helix they are in a circumferential direction to both lateral sides of the light-emitting tube; see Fig. 1, item 12; column 3, lines 25-26; glass envelopes block ultraviolet radiation).


Contact Information


26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony J. Canning whose telephone number is (571)-272-2486. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh D. Patel can be reached on (571)-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anthony Canning 
11 October 2005


ASHOK PATEL
PRIMARY EXAMINER